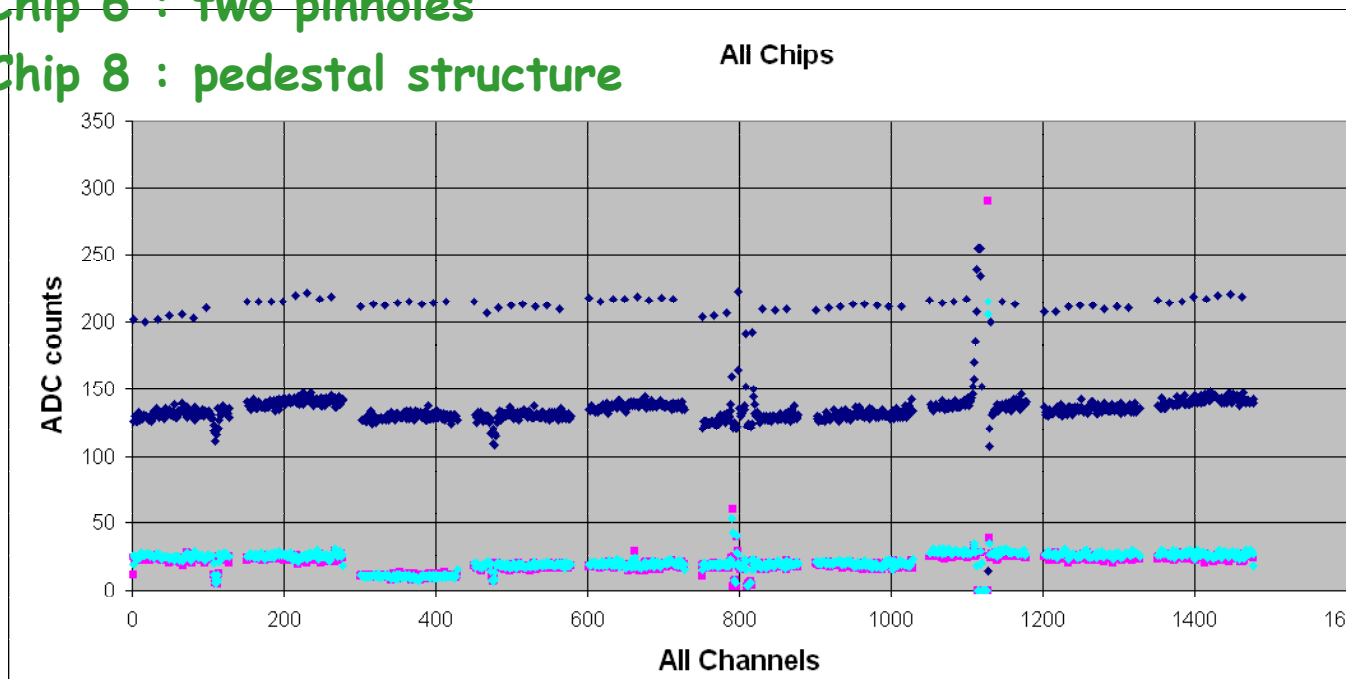
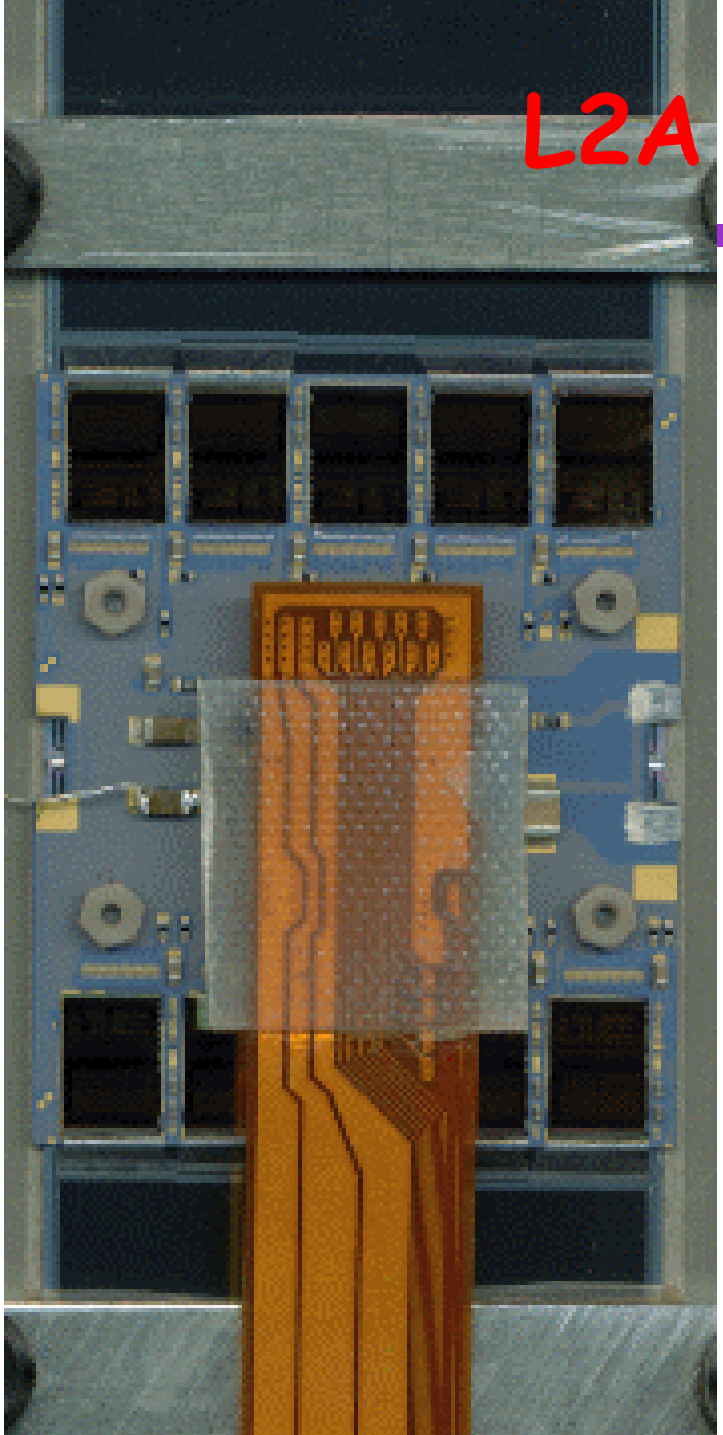
Module testing

A.Nomerotski 2/17/2003

- Progress in firmware
  - PA_RST conditions fixed (bug)
    - Studying what else can be improved/simplified in the firmware
  - With two PRD2 and proper grounding see nice performance
    - Total noise = Differential noise (!)
    - Good calinjects
    - Chip 6 : two pinholes
    - Chip 8 : pedestal structure



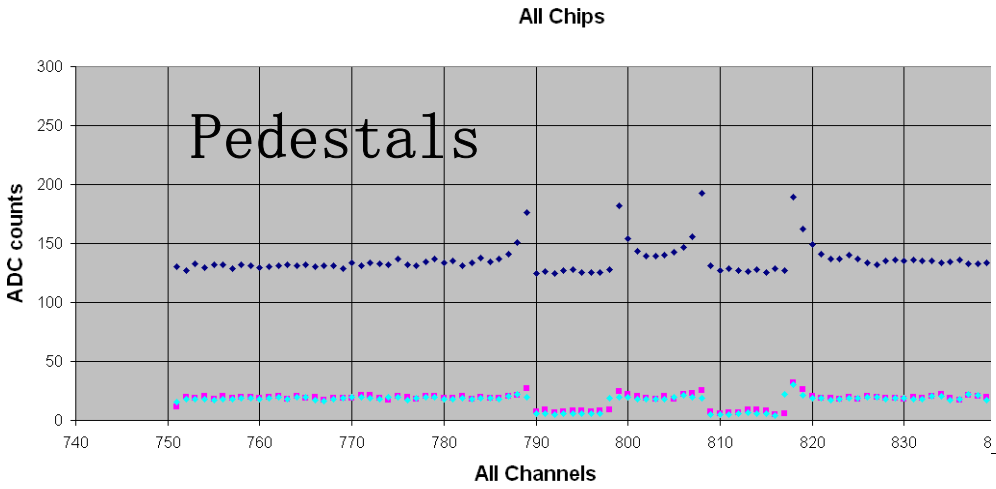


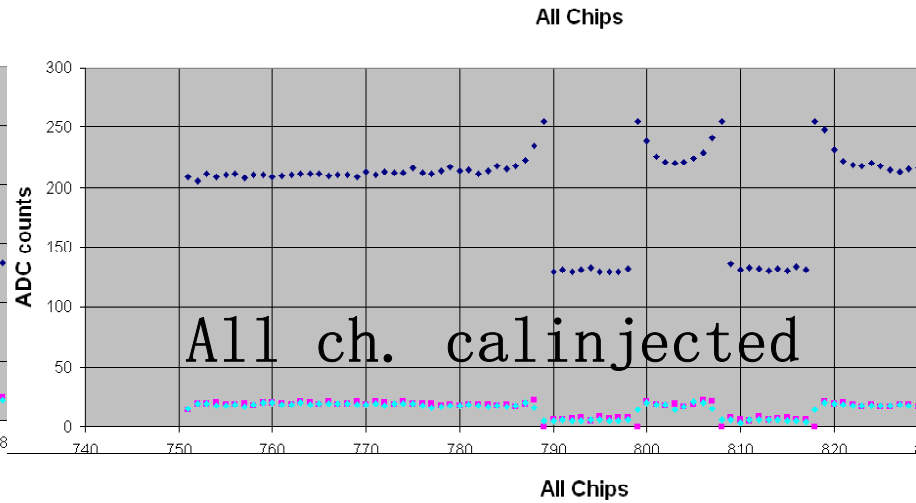
L2A 20-20 module # 8

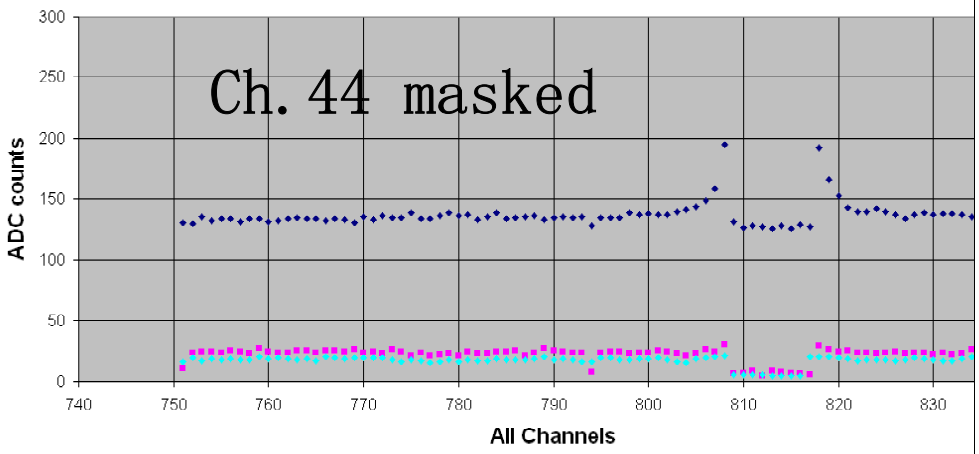
- Grounded from 1206 VDD bypass cap to the box

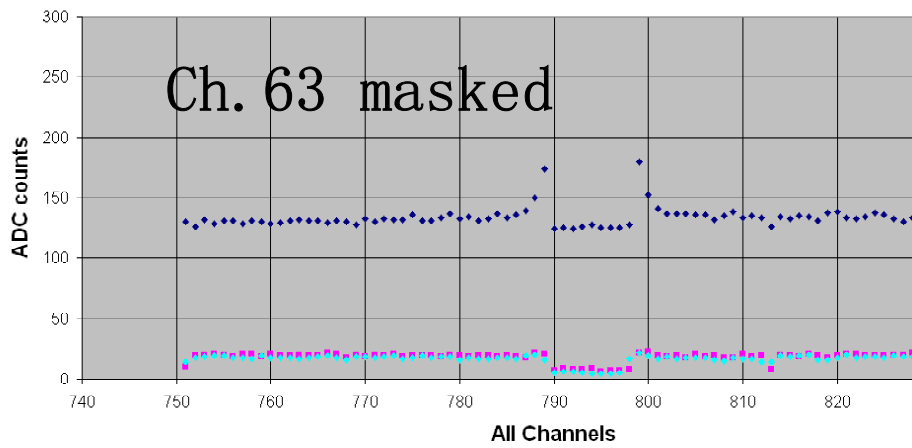
Pinhole Clamping

- Chip 6 : pinholes (broken AC) in ch.44 and 63
- Masking recovers all but broken channels
  - New feature of SVX4



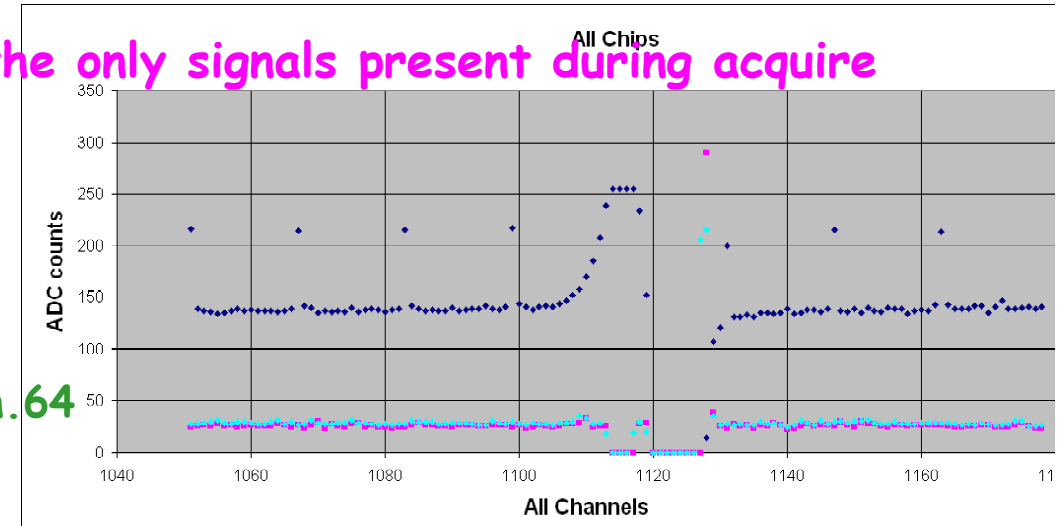


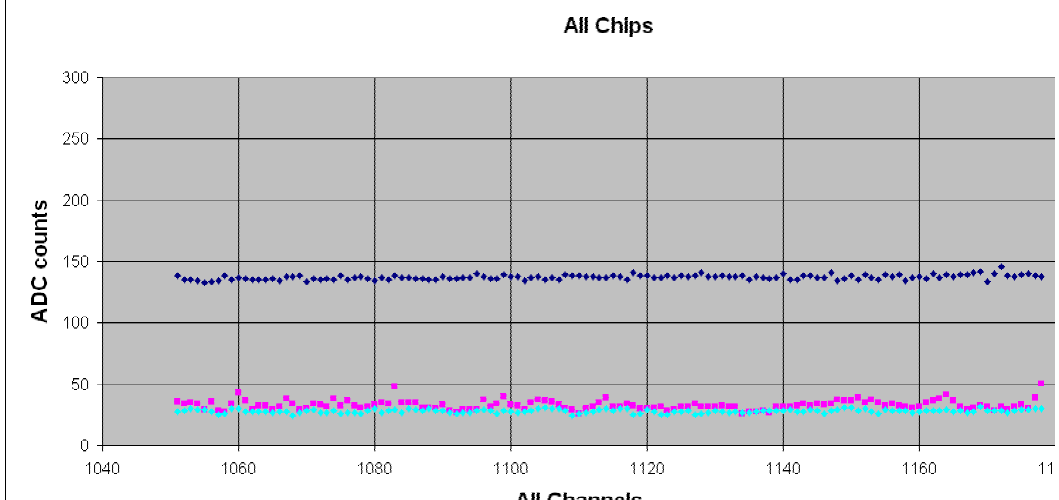




Pick-up from digital cable

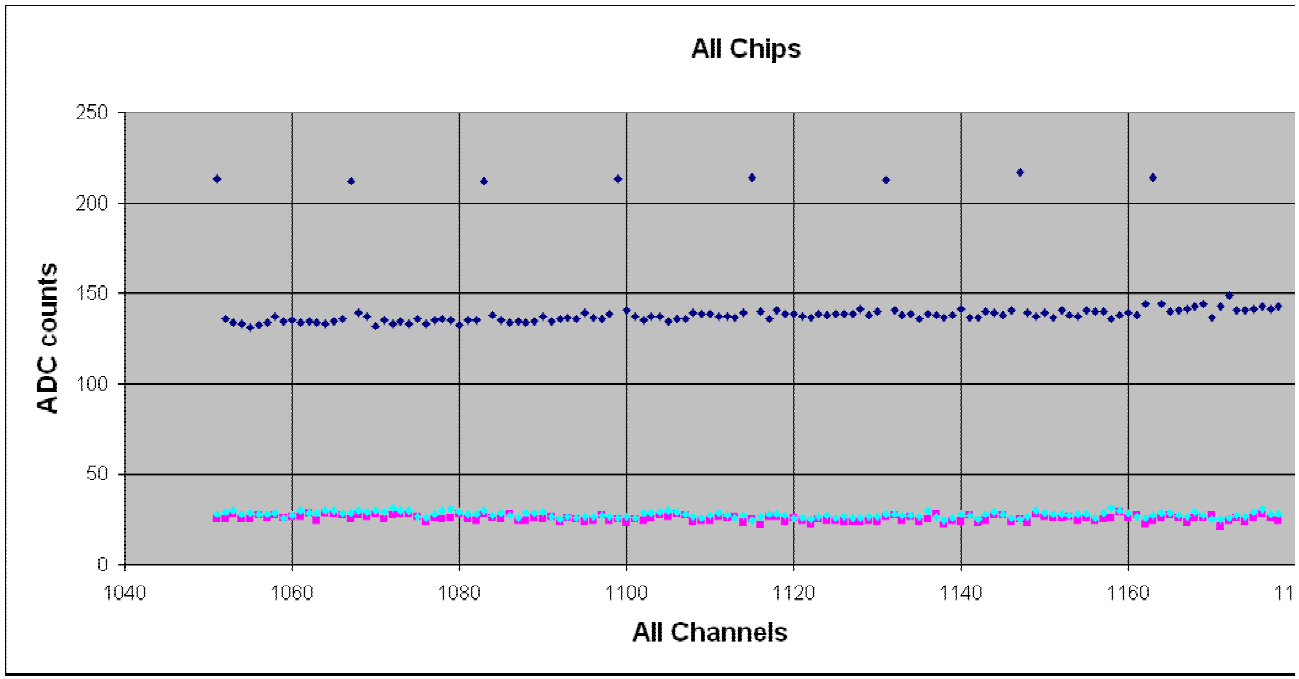
- Pedestal structure at chip 8 is caused by digital cable
  - Cable passes above chip 8
  - CLK and CAL_SR (D7) are the only signals present during acquire
  - Pipeline cell with calinject
    - Bipolar structure around ch.64
  - Neighboring cell
    - No structure





Pick-up from digital cable (2)

- Shielding with Al foil removes the structure



- Conclusion : Structure is caused by D7 during calinjecting
- Is it harmful?
  - Calinjects are not used during data taking
  - Calibration runs – problem with gain calculation for ~ 20 channels
- Need more studies with other modules/shielding schemes